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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,045

02/20/2004

Jim D. Meador

32849

6833

7590

10/12/2006

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EXAMINER

MOORE, MARGARET G

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/784,045

Applicant(s)

MEADOR ET AL.

Examiner

Margaret G. Moore

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-49, 51-64, 66-82 and 84-95 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41 to 43, 48, 49, 51 to 59, 63 to 77, 81, 82, 84 to 95 is/are rejected.
- 7) ☒ Claim(s) 44 to 47, 60 to 62, 78 to 80 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

1. Applicants' amendment has overcome the rejections of record, for reasons consistent with those provided by applicants. In view of applicants' amendment the Examiner updated a search of the prior art. This resulted in the discovery of a reference that anticipates and/or renders obvious at least some of the claims, including some claims previously indicated as being allowable. The Examiner sincerely apologizes for the delay in citing this reference.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 41 to 43, 48, 49, 51 to 53, 55, 57 to 59, 63 to 71, 73, 75 - 77, 81, 82, 84 to 92, 94 and 95 are rejected under 35 U.S.C. 102(e) as being anticipated by Babich et al.

Babich et al. qualifies as prior art under 35 USC 102(e)(1). Applicants' priority claim of 2/24/03 to provisional application 60/449,898 does not overcome this rejection since this application does not support the subject matter currently claimed.

Babich et al. teach a coating composition that comprises a POSS compound. As can be seen on paragraphs 14 and 15, R can be a crosslinking group. See also the last R group in paragraph 23. Even more particularly note the POSS compound on the top of the right hand column on page 5, as this anticipates the compound in claim 43 (thus also meeting claims 41 and 42). In Example 2 this compound is mixed with a crosslinking agent in a solvent system. In this manner Babich et al. fully anticipates claims 41 to 43. The sulfonate compound in Example 2 meets claim 48; the melamine resins taught in paragraph 25 meets claim 49.

For claim 51, see paragraph 27 which teaches the combination of two different acids generators, ones that liberate acid upon heat and upon radiation. Since these two

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acids will have different strengths and since "weak" and "strong" in claim 51 are relative terms, the presence of the two different acids will meet this claim.

For claim 52, while this limitation is not specifically taught, products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present.

For claim 55, see paragraph 55. The examples apply the layer to a silicon wafer, meeting claim 57.

For the limitations of claims 68 to 70, see Example 3, which teaches a thickness of 1,700 angstroms. See also the specifically disclosed lower limit of .03 microns taught on paragraph 35, as it anticipates these claims.

In this manner the instant claims are anticipated by the teachings in Babich et al

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 54, 56, 72, 74 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babich et al.

These claims require the presence of an anti-reflective coating between the substrate and the layer of a composition as claimed. The Examiner acknowledges that the composition in Babich et al. is used as an anti-reflective layer. However the application of another, different, anti-reflective layer, in an effort to ensure and/or enhance anti-reflective properties, on the substrate of Babich et al. would have been obvious. On the other hand, it would have been obvious to apply the composition of Babich et al. on top of an already applied composition in an effort to obtain the desired thickness. Note that these claims do not require that the anti-reflective composition be different than the

layer of a composition on a substrate. In this manner the skilled artisan would have found these claims to have been obvious.

6. Claims 44 to 47, 61 to 62 and 78 to 80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

For claim 44, please note that this requires a composition in which both an R³ group and an alcohol functionality are present on the polymer or compound. Such a compound is not taught nor suggested by the prior art. For claims 45 to 47, the prior art fails to teach or suggest a polymer having recurring POSS monomers as claimed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Margaret G. Moore

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Primary Examiner
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mgm
10/9/06